Southern Rockies Landscape Conservation Cooperative
Steering Committee Meeting
Conference Call
April 23, 2012

Meeting Summary

Participants

Please see Appendix A for a complete list of meeting participants

Meeting Objectives

Build agreement on high priority project types to pursue and approach for potential FY2012 funding to identify 2012 science needs.

Agreements

- The Steering Committee (SC) agreed to 14 project types to pursue – 10 project types to be pursued via available partner funds and 4 coordination project types for the LCC staff to lead in collecting additional information to help determine how these issues may be addressed in the coming years.
    1. Finish digitizing the National Wetlands Inventory maps for the Southern Rockies LCC portion of Colorado and Utah
    2. Synthesize existing data and efforts associated with vulnerability assessments and develop a work plan that identifies how VA's are used to inform adaptive management.
    3. Synthesize existing data & efforts to assess habitat condition and develop a strategic. work plan for conducting an LCC-wide, landscape-scale habitat condition assessment.
    4. Help water managers better understand how variability in significant meteorological events (e.g., monsoons, atmospheric river events) affects runoff, allowing them to better manage water resources.
    5. Quantify risks to watershed hydrology due to catastrophic wildfires.
    6. How has storm-water runoff changed with urbanization?
    7. Improve dust production models to support climate change impact studies.
    8. Improve stream-flow forecasts.
    9. Identify locations to supplement the existing network of stream gages.
    10. Develop a decision support tool allowing water managers to estimate future water needs more accurately & in a more timely fashion.
    11. *Coordination Project Type #1:* Determine the effect of tamarisk beetle on riparian ecosystems and monitor expansion of tamarisk beetle.
    12. *Coordination Project Type #2:* Provide a framework for quantifying uncertainty in studies of climate change on water resources.
    13. *Coordination Project Type #3:* Examine the use of ground water by vegetation in alluvial basins.
    14. *Coordination Project Type #4:* Identify where the LCC can collaborate with partners to incorporate ecological flow requirements into hydrologic models.
- The SC also approved seeking use of FWS funding for combined project types #2 and #3 above and roll them into a larger effort to identify priority resources across the landscape and develop a strategic conservation framework; addressing project types #4-8 and #10, and their associated science needs (with possible new projects) through the BOR Funding Opportunity Announcement competitive grants process and addressing project types #1 and #9 through BOR Interagency Agreements.

Action Items

- Avra Morgan will check into the potential use of Cooperative Ecosystem Studies Unit as a funding vehicle for BOR funds.

Detailed Meeting Overview:

Welcome from SRLCC Chairs

Steve Guretin, SRLCC Chair, Fish and Wildlife Service, thanked the steering committee for their hard work and continued effort to approve priority project types for 2012.

Becky Mitchell, SRLCC Vice Chair, Colorado Department of Natural Resources, also thanked the steering committee and spoke briefly about the informative National LCC workshop in Denver at the end of March where she was honored to open the workshop.

SWG Recommended Project Types

John Rice, SRLCC Science Coordinator reviewed the process and resulting Science Working Group (SWG) recommended project types.

Process

As requested by the Steering Committee at their February meeting, small groups gathered information on current projects being worked on under the vulnerability science needs and the hydrology science needs. The small groups collated the information and looked for leveraging opportunities to recommend a set of project types for each science need.

The small groups' collected projects were assessed against five criteria to provide a list for the SWG to review. Criteria included:

1. Does the project fit within the Priority Science Need?
2. Does the project apply to the larger landscape
3. Does the project inform management decisions (applied science)?
4. Would the project be useful to a large number of resource managers?
5. Does the project complement existing landscape level efforts?

The SWG then reviewed the list and recommended project types for steering committee approval and a recommended funding approach to achieve desired outcomes.

SWG Recommended High-Priority Projects and Project Types:

- *Science Need #1:* Develop a model to inform management decisions related to habitat protection/preservation for desired population numbers of riparian obligate and wetland species
    - *Project Type #1*: Finish digitizing the National Wetlands Inventory maps for the Southern Rockies LCC portion of Colorado and Utah.
        - This project builds on the efforts that have been started in all 5 states; provides a seamless digital map of riparian and wetland areas across the entire LCC; and fills a much needed gap in spatial information pertaining to characterization of the landscape.
        - Data would provide decision support to resource managers and could be used as a building block in future development and delivery of science.

- *Science Need #2:* Assessment of vulnerability to reduction in habitat.
    - *Project Type #2*: Synthesize existing data and efforts associated with vulnerability assessments and develop a work plan that identifies how VA's are used to inform adaptive management.
        - Builds on the many existing vulnerability assessments by identifying data gaps and leveraging opportunities.
        - Data would provide a strategic framework for assessing vulnerability and characterizing the risks to ecosystems and species across the landscape.

- *Science Need #3:* Assessing species/population vulnerabilities through identification of migration and connectivity corridors, and identification of adaptation strategies.
    - *Project Type #3*: Synthesize existing data & efforts to assess habitat condition and develop a strategic work plan for conducting an LCC-wide, landscape-scale habitat condition assessment.
        - Builds on existing independent and coordinated effort across the LCC to develop and employ spatial databases to forecast priority wildlife habitats and corridors.
        - Creates a strategic framework, incorporating on-going efforts to facilitate development of protocols to ensure consistency and seamlessness in spatial analysis tools; agreement on particular "conditions of use" for data shared across jurisdictional boundaries; and identification of significant data gaps to equilibrate the data to improve the overall utility of the DSS.

- *Science Need #4:* Identification of changes in source-water runoff and resultant changes to surface/groundwater interaction.
    - *Project Type #4:* Help water managers better understand how variability in significant meteorological events (e.g., monsoons, atmospheric river events) affects runoff, allowing them to better manage water resources.
        - Shows how climate change may affect these events.
    - *Project Type #5:* Quantify risks to watershed hydrology due to catastrophic wildfires.
        - Puts the risk into context with respect to climate change; and synthesizes information regarding wildfire prevention, impacts and mitigation.
        - Develops an applied decision support tool for resource managers
    - *Project Type #6:* How has storm-water runoff changed with urbanization?
        - Compares historical (pre-development) runoff to modern (current) runoff and uses precipitation data and models to examine runoff under the different land use conditions.
        - Develops an applied tool for decision support.
    - *Project Type #7:* Improve dust production models to support climate change impact studies.
        - Addresses how climate change impacts the frequency and intensity of dust storms in the western U.S., and how it will impact mountain snowpack.
    - *Project Type #8:* Improve stream-flow forecasts.
        - Employs a suite of modeling and field techniques to better understand the factors influencing snow accumulation and melt at multiple scales.
    - *Project Type #9:* Identify locations to supplement the existing network of stream gages.
        - Evaluates supplemental locations in the context of limited funding and resources and the current and future needs for water rights administration, calculation of water balances, and ecological flow.

- *Science Need #5:* Incorporate climate change projections & ecological flow needs into hydrological models.
    - *Project Type #10*: Develop a decision support tool allowing water managers to estimate future water needs more accurately & in a more timely fashion.

- Get a better understanding of cropping patterns and improving evapotranspiration estimates over a wide geographical area; agriculture is a significant part of water demand, and this information will be important to forecasting future agricultural demand for water.

- *Science Need #6:* Data Management and Spatial Data (including GIS layers) to acquire vegetation land cover, land use, water utilization, energy development, population centers – current and potential future, recreation use, etc. to aid in identification of LCC focal resources and associated needs
    - *NOTE: Project Types will be recommended by the small group at a future date, to:*
        - *Make Federally funded (LCC) data publically available;*
        - *Identify, obtaining and helping make available relevant general geospatial data; sets applicable to the LCC;*
        - *Maintain data security and integrity; and*
        - *Collaboratively develop a long-term solution to data storage and use.*

SWG Recommended Coordination Project Types:

The SWG also recommended projects for further coordination and information in order to establish the best leveraging and best possible efforts to further knowledge on the issue:

- *Science Need #1:* Develop a model to inform management decisions related to habitat protection/preservation for desired population numbers of riparian obligate and wetland species.
    - *Coordination Project Type #1:* Determine the effect of tamarisk beetle on riparian ecosystems and monitor expansion of tamarisk beetle.
- *Science Need #4:* Identification of changes in source-water runoff and resultant changes to surface/groundwater interaction.
    - *Coordination Project Type #2:* Provide a framework for quantifying uncertainty in studies of climate change on water resources.
    - *Coordination Project Type #3:* Examine the use of ground water by vegetation in alluvial basins.
- *Science Need #5:* Incorporate climate change projections & ecological flow needs into hydrological models.
    - *Coordination Project Type #4:* Identify where the LCC can collaborate with partners to incorporate ecological flow requirements into hydrologic models.

Agreement: The SC agreed to the recommended list of project types (15 total - 11 for possible funding and 4 for SRLCC coordination) to address five of the 2012 science needs (the Data and Information Management sub-group will have recommendations soon regarding the sixth science need).

Approach to Complete Project Types

Overall, to support SRLCC activities, Fish and Wildlife Service (FWS) is able to contribute approximately $100,000 and Bureau of Reclamation (BOR) is able to offer an additional $700,000 through their competitive Funding Opportunity Announcement (FOA) process and Interagency Agreements (IAG).

Fish and Wildlife Contribution

The SRLCC Coordinator and Science Coordinator reviewed vulnerability project types 2 &3 within the context of developing a Strategic Synthesis for priority resource identification. The Coordinators saw an opportunity to roll them into a larger effort to identify priority resources across the landscape and use current FWS SRLCC funds available to develop a strategic conservation framework.

Bureau of Reclamation Contribution

Avra Morgan spoke of BOR's approximately $700,000 that will be available through their competitive FOA process. The FOA process has requirements to follow. The approved project types will become representative, or example projects under different funding categories that are applicable to SRLCC 2012 science needs. This opens up the possibility of receiving a larger range of submittals, beyond the one example project. Receiving a range of possible projects will allow selection of the most effective and efficient projects either very similar to the example project or possibly a new project.

The FOA will fund 2 year projects and requires a minimum cost-share (50% federal and 50% non-federal; cash or in-kind). Eligibility for the FOAs includes universities, non-profit research institutions, entities with water and power delivery authority, and/or non-governmental organizations. Federal agencies are not eligible for an FOA, but they are eligible for Interagency Agreements (IAG).

FOA funding categories and the science needs and approved project types they might cover, for example:

- *FOA Category I* – Projecting future water availability and quality (inform projection of future water availability, timing, quality, water supply volumes and demands in the LCC.
    - *Science Need #4 and representative project types*: Identify change in source-water runoff and resultant change to surface/groundwater flows; and representative project types would be project types #4, #5, #6, #7, #8.
- *FOA Category II* – Projecting the resiliency and vulnerability of Natural or cultural resources (address the resiliency and vulnerability of resources that affect or are affected by water resources management within the SRLCC, including cultural, plant, fish, and wildlife resources).
    - *Science Need #1:* Develop a model to inform management decision related to habitat protection/preservation for desired population numbers of riparian obligate and wetland species; and representative project type would be project type #1.
    - *Science Need #2:* Assessment of vulnerability to reduction in habitat.
- *FOA Category III* – Assessing management impact and adaptation opportunities (assess impact on natural and/or human resources management practices from climate change opportunities to identify strategies to adapt to or mitigate those impacts and other stressors on the environment).
    - *Science Need #5:* Incorporate climate change projections and ecological flow needs into existing or new hydrological models, offering water manger information about water supply scenarios to support decisions about water allocation to meet human and ecological needs; and representative project type would be project type #10.

FOA criteria includes technical merit (meets the identified science need and ability to accomplish the scope), relevance of the project to the SRLCC (complements other effort, broad geographic scope or applicability and useful to managers), disseminates the results, and connection with BOR projects or activities.

The FOA process begins with review of the BOR FOA language by the SRLCC. Following receipt of submittals a selection committee, or Application Review Committee (ARC), comprised of BOR and SRLCC representatives will review all proposals against the criteria and identify those that best meet the science needs and criteria. Decisions will be made by BOR, based on the ARC's recommendations.

BOR intends to split their approximately $700,000 between the FOA and IAGs, with the majority going to the FOA.

Interagency Agreements (IAGs) allow BOR to allocate some funding for work to federal agencies; that work that is uniquely federal agency work. The IAG requires a cost-share (50% BOR and 50% other federal entity(s)). The IAGs may be particularly suited for capacity or baseline science needs projects. In order to not tailor the IAGs to one agency, it will be broader and potentially include science needs #1, #4 and #6.

The IAG process includes BOR posting a notice on their or the LCC's website. Once proposals are received there would be an initial screening, input from the LCC, and BOR management review resulting in a contracting process for the successful IAG proposals.

Questions and Answers

Q: Can BOR use Cooperative Ecosystem Studies Unit as a funding vehicle (CESU; vehicle for federal agencies that have signed on to partner with universities)?

A: It is unknown if BOR is a direct signatory to the CESUs or which one. Even if not directly connected, BOR still could use a CESU if partnering with a SRLCC federal agency that has signed on.

ACTION: Avra Morgan, BOR will look into it.

Q: Will wording of the FOA be reviewed by anyone on the SRLCC before being published?

A: Yes, like last year SRLCC will have an opportunity to comment on FOA wording before it is public.

Q: Is there a requirement that FOAs and IAGs have different types of projects?

A: This time it will be more flexible. Initially, under the IAG BOR will look for those project types that are distinct from FOA types, to decrease competition between federal agencies and non-federal organizations. The flexibility will create the opportunity to get the best science. BOR is open to suggestions on how broad or narrow the IAGs should be in order to receive multiple federal agency responses. IAGs have two standards to meet: 1) use of an interagency acquisition is in the best interest of the Government; and 2) the project can be done more conveniently or economically by a Federal entity than by contracting with a private source (authorized under 1932 Economy Act). Additionally, BOR's IAGs needs to have a nexus to water.

Q: Will it be published on the web? It is the best way to get the information out broadly.

A: Yes, it will be on the web. If on the LCC site there will be a link to the www.grants.gov website.

Agreement: The SC agreed to the recommended approach for FWS and BOR contributions and processes.

Next SRLCC Steering Committee Meeting

The expectation is there will be a conference call in the summer and a meeting in the early fall.

Appendix A: Conference Call Attendance

April 23, 2012

Dave Anderson	Colorado Natural Heritage Program
Pam Benjamin	National Park Service
Astor Boozer	National Resources Conservation Service
Patrick Donnelly	Intermountain West Joint Venture
Steve Guertin	United States Fish and Wildlife Service, SRLCC Chair
Mitchel Hannon	Trust for Public Lands
Amy Heuslein	Bureau of Indian Affairs
Jonne Hower	Bureau of Reclamation
Kevin Johnson	SRLCC Coordinator
Mary Manuelito	Bureau of Indian Affairs
Frank McCormick	United States Forest Service
David Mehlman	The Nature Conservancy
Becky Mitchell	Colorado, Department of Natural Resources, SRLCC Vice Chair
Jeremey Mikrut	Bureau of Reclamation
Avra Morgan	Bureau of Reclamation
Brent Reese	Bureau of Reclamation
John Rice	SRLCC Science Coordinator
Sharon Rose	United States Fish and Wildlife Service
Mark Sogge	United States Geological Society
Greg Watson	United States Fish and Wildlife Service
Jody Erikson	The Keystone Center (facilitator)